

the chemical foaming agent is a mixture of polycarboxylic acid and hydrogen carbonate at a ratio of 0.1:0.9 to 0.9:0.1 or its decomposed material.

28. (New) The injection foaming process of Claim 21 wherein the chemical foaming agent is a mixture of citric acid and sodium hydrogencarbonate at a ratio of 0.1:0.9 to 0.9:0.1 or its decomposed material.

29. (New) The injection foaming process of Claim 26 wherein the thermoplastic resin is a polyolefin.

30. (New) The injection foaming process of Claim 1 wherein the mold cavity has a volume initially set at a value lower than the quantity of resin being injected.

31. (New) The injection foaming process of Claim 25 wherein the mold cavity has a volume initially set at a value lower than the quantity of resin being injected.--

REMARKS

Entry of the foregoing amendments prior to examination of this application is respectfully requested in view of the following comments.

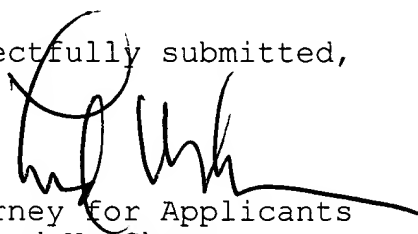
Claims 1, 2, 8, 9, 10, 13 and 14 have been amended. Claims 3-6, 15 and 16 have been cancelled and new claims 17-31 have been added. Accordingly, claims 1, 2, 7-14 and 17-31 are pending herein.

Claims 1, 2, 8, 9, 10, 13 and 14 have been amended to correct obvious informalities and improper multiple dependencies

therein and to correct grammatical errors. Claims 3-6, 15 and 16 have been cancelled to delete improper multiple dependencies and new claims 17-31 correspond to those claims rewritten in proper single dependent form.

No new matter has been added by these amendments and applicants respectfully submits that this application is in condition for allowance and an early notice to that effect is earnestly solicited.

Respectfully submitted,



Attorney for Applicants
Leonard W. Sherman
Reg. No. 19,636

SHERMAN & SHALLOWAY
P.O. BOX 788
Alexandria, Virginia 22313
(703) 549-2282

09885053-062101

Marked-Up Claims

1. (Amended) A process for injection-foaming a thermoplastic resin [by] using an injection molding machine [with] having a two-stage compression screw within a cylinder and to which a physical foaming agent is fed [from the middle] at a midpoint of the cylinder, [which comprises] comprising:

(1) feeding the physical foaming agent [is fed] into the cylinder from [the] a storage tank at a pressure lower than storage pressure by a pressure difference between the storage tank and the injection molding machine cylinder;

(2) feeding the [aforesaid] foaming agent [is fed] within [the] a range from the starting point of the second stage of the screw to a length nine times the outside diameter of the screw in the direction of injection at the time [of] the screw is caused to advance most forward in the direction of injection; and

(3) obtaining a foam [is obtained] by [making] reducing the pressure in a cavity of the mold in the injection molding machine [at] to low pressure including practically atmosphere pressure, injecting the resin into the cavity, and then expanding the volume of the cavity.

2. (Amended) [An] The injection foaming process according to Claim 1 wherein the volume of the cavity is expanded by retracting [the] metal plates in the mold after injecting and filling the resin into the cavity.

8. (Amended) [An] The injection [foaming process] molding machine according to Claim 7, wherein the ratio of $L2/L1$, between the depth of the last groove of the first stage of the two-stage compression screw [of the aforesaid injection molding machine], $L1$, and the depth of the first groove of the second stage of the [aforesaid] two-stage compression screw, $L2$, is in the range of 1.2 to 6.

9. (Amended) [An] The injection [foaming process] molding machine according to Claim [7 or] 8 [wherein] further comprising a resin check valve [is] installed at the [part] point at which the physical foaming agent is injected into the injection molding machine.

10. (Amended) A resin composition suitable for [the] injection foaming [process defined in any one of Claims 1 to 6] which comprises a thermoplastic resin containing as a foaming nucleator 0.1 to 5 wt% of an inorganic filler having an average particle diameter of 0.5 to 10 μ m to the thermoplastic resin and/or 0.01 to 1 wt%, calculated as undecomposed material, of a chemical foaming agent or its decomposed material.

13. (Amended) [A] The resin composition according to Claim 10 [or 12] wherein the chemical foaming agent is a mixture of citric acid and sodium hydrogencarbonate at a ratio of 0.1:0.9 to 0.9 [to] \pm 0.1 or its decomposed material.

14. (Amended) A resin composition according to [any one of Claims] Claim 10 [to 13] wherein the thermoplastic resin is polyolefin.

09885053-062101